



Weberbaueria arequipa (Brassicaceae), a New Species from Peru

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ABSTRACT. *Weberbaueria arequipa* Al-Shehbaz & Montesinos (Brassicaceae), a new species from Peru, is described and illustrated. It is distinguished from the other species of *Weberbaueria* Gilg & Muschler by having ebracteate racemes, persistent sepals and petals, 4-seeded fruits, and a few simple trichomes restricted to the petiolar bases. It is closely related to the Bolivian *W. retropila* Al-Shehbaz, but differs by the lack of branched trichomes and by having glabrous fruits, smaller flowers, and persistent petals. The IUCN status of the new species is determined as Data Deficient (DD).

Key words: Brassicaceae, IUCN Red List, Peru, *Weberbaueria*.

Gilg and Muschler (1909) established *Weberbaueria* Gilg & Muschler (Brassicaceae) as a monotypic genus based on a species they described from Peru as *W. densiflora* Gilg & Muschler. Schulz (1924) recognized two species in the genus and reduced the above to synonymy of *W. spathulifolia* (A. Gray) O. E. Schulz. Macbride (1934) expanded the limits of *Weberbaueria* by the transfer of the type species of two monospecific genera, *Alpamina* O. E. Schulz and *Pelagatia* O. E. Schulz. Al-Shehbaz (1990a) further expanded the genus by the discovery of five new species and by the transfer of six previously placed in *Stenodraba* O. E. Schulz. Several species have since been added to *Weberbaueria* (Al-Shehbaz, 1990b, 2004) and, as presently stands, the genus consists of 23 species, including the novelty below, *W. arequipa* Al-Shehbaz & Montesinos. The new species was discovered during the

2005–2006 fieldwork in the Peruvian departments of Arequipa and Moquegua by the second author (D.B.M.) as part of his research toward the bachelor degree at Universidad Católica de Santa María, Arequipa.

Weberbaueria arequipa Al-Shehbaz & Montesinos, sp. nov. TYPE: Peru. Arequipa: Arequipa Prov., Distr. San Juan de Tarucani, Tico Tico, 16°06'30"S, 70°59'16"W, riverbed, 4181 m, 3 Apr. 2006, D. B. Montesinos & L. P. Mondragón 936 (holotype, WAG; isotypes, MO, USM). Figure 1.

Herba annua ca. 6 cm alta, glabra. Folia caulina oblanceolata, 8–12 × 3–5 mm, petiolata, dentata, petiolis ad basim ciliata. Racemi ebracteati; pedicelli fructiferi divaricati, 2–4(–5) mm longi, glabri, recti. Sepala oblonga, 1.1–1.3 × 0.6–0.8 mm, glabra; petala alba, anguste obovata, 1.8–2 × 0.7–0.9 mm; ovula 4. Fructus oblongus vel lanceolatus, 5–7 × 1.3–1.6 mm, stylo 0.3–0.5 mm longo coronatus; semina oblonga, uniseriata, 1.3–1.6 × 0.9–1 mm, cotyledonibus incumbentibus.

Herbs annual, ca. 6 cm tall; trichomes absent except a few simple ones at base of petioles; stems decumbent, glabrous, several branched above base. Cauline leaves oblanceolate, petiolate, 8–12 × 3–5 mm, petioles 2–4 mm, blade glabrous, base attenuate, margin dentate. Racemes ebracteate, elongated slightly in fruit; rachis straight. Sepals green, oblong, 1.1–1.3 × 0.6–0.8 mm, glabrous, membranous at margin, not saccate at base; petals white, narrowly obovate, 1.8–2 × 0.7–0.9 mm, not clawed; filaments white, 1–1.5 mm; anthers ovate, ca. 0.4 mm; ovules 4

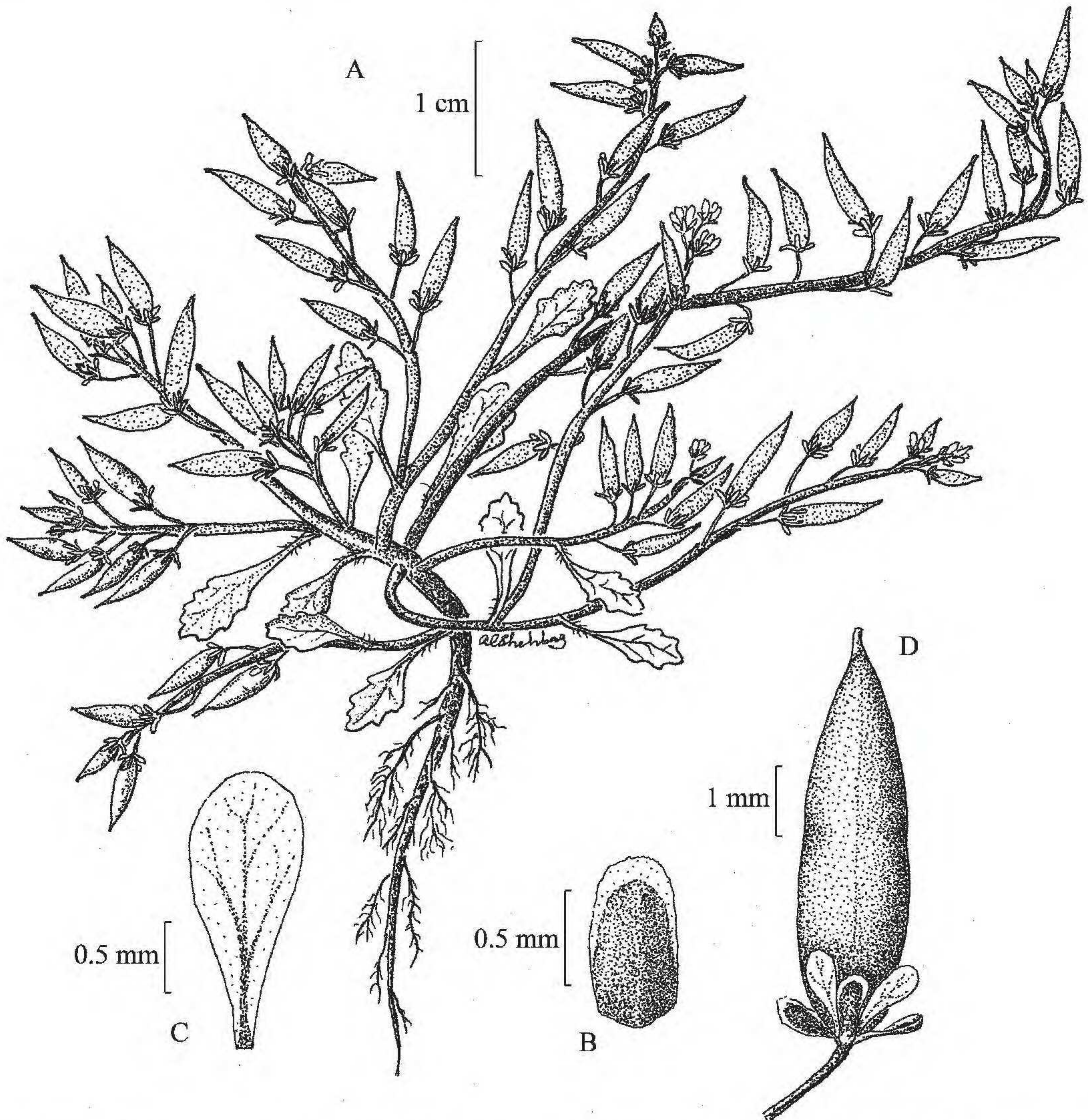


Figure 1. *Weberbaueria arequipa* Al-Shehbaz & Montesinos. —A. Fruiting plant. —B. Sepal. —C. Petal. —D. Fruit with fruiting pedicel and persistent sepals and petals. Drawn from the holotype Montesinos & Mondragón 936 (WAG).

per ovary. Fruiting pedicels mostly divaricate, 2–4(–5) mm, straight, slender; fruits oblong to lanceolate, 5–7 × 1.3–1.6 mm, not torulose, straight; valves with an obscure midvein, glabrous; style 0.3–0.5 mm; stigma entire. Seeds dark brown, oblong, uniseriate, 1.3–1.6 × 0.9–1 mm; cotyledons incumbent.

Distribution and IUCN Red List category. *Weberbaueria arequipa* grows at riverbeds in grasslands, together with *Jarava ichu* Ruiz & Pavón, *Werneria pygmophylla* S. F. Blake, *Azorella compacta* Philippi, and *Perezia multiflora* Lessing. It is known thus far only from the type locality and appears to be extremely rare. However, its IUCN Red List category (IUCN, 2001) is determined as Data Deficient (DD).

Etymology. The species epithet *arequipa*, named after the Peruvian department and province Arequipa, is a noun used in apposition and, therefore, should be maintained according to Article 23.5 of the *International Code of Botanical Nomenclature* (McNeill et al., 2006).

Discussion. The new species is readily distinguished from the other species of *Weberbaueria* by its ebracteate racemes, persistent sepals and petals, 4-seeded fruits, and few simple trichomes restricted to the petiolar bases. It is related to the Bolivian endemic *W. retropila* Al-Shehbaz but differs by the absence (vs. presence) of branched trichomes and by having glabrous (vs. retrorsely pubescent), 4- (vs. 6 or 8)-seeded fruits, glabrous (vs. sparsely pubescent) leaf

surfaces, smaller flowers (sepals 1.1–1.3 mm vs. 2–2.5 mm long, petals 1.8–2 mm vs. 3–3.5 mm long), and persistent (vs. caducous) petals.

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Literature Cited

- Al-Shehbaz, I. A. 1990a. A revision of *Weberbaueria* (Brassicaceae). *J. Arnold Arbor.* 71: 221–250.
- . 1990b. *Weberbaueria perforata* (Brassicaceae), a new species from Peru. *Ann. Missouri Bot. Gard.* 77: 481–482.
- . 2004. A synopsis of the South American *Weberbaueria* (Brassicaceae). *Novon* 14: 258–268.
- Gilg, E. & R. Muschler. 1909. Aufzählung aller zur Zeit bekannten südamerikanischen Cruciferen. *Bot. Jahrb. Syst.* 42: 437–487.
- IUCN. 2001. IUCN Red List Categories and Criteria, Version 3.1. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland, and Cambridge, United Kingdom.
- Macbride, J. F. 1934. New or renamed spermatophytes mostly Peruvian. *Candollea* 5: 346–402.
- McNeill, J., F. R. Barrie, H. M. Burdet, V. Demoulin, D. L. Hawksworth, K. Marhold, D. H. Nicolson, J. Prado, P. C. Silva, J. E. Skog, J. H. Wiersema & N. J. Turland (editors). 2006. International Code of Botanical Nomenclature (Vienna Code). *Regnum Veg.* 146.
- Schulz, O. E. 1924. Cruciferae–Sisymbrieae. Pp. 1–388 in A. Engler (editor), *Das Pflanzenreich IV*, 105(Heft 86). Wilhelm Engelmann, Leipzig.